

Application Serial No: 10/534959  
Responsive to the Office Action mailed on: March 9, 2007

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**REMARKS**

This Amendment is in response to the Office Action mailed on March 9, 2007. Claim 9 is amended editorially to include the features of claims 1, 5 and 6. No new matter is added. Claims 1-7 and 9 are pending.

**PTO-1449 Form:**

Please note that a signed PTO-1449 Form for Application Serial No. 10/534,956 was inadvertently attached with the signed PTO-1449 Form for the present application to the Office Action of March 9, 2007. Applicants respectfully request appropriate correction of the PTO records.

**Specification Objections:**

Claim 9 is objected to as being of improper dependent form. Claim 9 is amended editorially into independent form and includes the features of claims 1, 5 and 6. Withdrawal of this objection is requested. Applicants do not concede the correctness of this rejection.

**102(b) Rejections:**

Claims 1, 2, 6, 7 and 9 are rejected as being anticipated by Basoglu (US Patent No. 5,910,117). This rejection is traversed.

Claim 1 is directed to an ultrasonic Doppler blood flow measurement device that requires, among other features, a first memory section that is constituted by a memory that has a two-dimensional address space and different data read/write speeds in a row direction and a column direction of the address space, and that stores detection signals and a second memory section that is constituted by a memory that has a capacity that is smaller than that of the first memory section but is at least the capacity of a data amount required for a blood flow information computation section to compute any one depth point of the object, and that stores the detection signals used for the computation by the blood flow information computation section. Claim 1 further requires a data transfer section that performs data transfer from the first memory section to the second memory section in only the direction, of the row direction and the column direction of the address

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space of the first memory section, that has the faster data read/write speed. An advantage of these features is that even when memory used for the first memory section has the characteristic of different read/write speeds in the row direction and the column direction, it is still possible to reduce the effects of the slower read/write speed and perform high-speed data transfer to the blood flow information computation section. Thus an ultrasonic Doppler blood flow measurement device that is compact and inexpensive is achieved (see page 4, lines 1-11).

Basoglu does not disclose or suggest these features. Basoglu is directed to a real time color Doppler ultrasound image that has a first and second memory module for real-time viewing of a scanned target area in a display (see column 4, lines 53-54). However, nowhere does Basoglu disclose or suggest first memory section that is constituted by a memory that has a two-dimensional address space and different data read/write speeds in a row direction and a column direction of the address space. Basoglu merely discloses a first and second memory module on a common substrate and are used to process velocity data by storing the data alternately, with no mention of different data read/write speeds (see column 4, lines 53-54, column 15, lines 29-48 and column 16, lines 42-45). Furthermore, the color Doppler processing method described in Basoglu does not show a two-dimensional address space as required by claim 1 (see column 6, lines 36-40 and Figure 14). Moreover, Basoglu does not contemplate the cost and size problems associated with storing data in a first and second memory section. Thus, there is no motivation in Basoglu to modify its device to obtain the features of claim 1. For at least these reasons, claim 1 is not suggested by Baoglu and should be allowed. Claims 2, 6 and 7 depend from claim 1 and should be allowed for at least the same reasons.

Claim 9 is directed to a recording medium storing a program for use in an ultrasonic Doppler blood flow measurement device that requires, among other features, an ultrasonic Doppler blood flow measurement device that includes all of the features of claim 1. Furthermore, claim 9 requires the process of performing data transfer from the first memory section to the second memory section, in a case where the result of the determination process is positive, in only the direction, of the row direction and the column direction of the address space of the first memory section, that has the faster data read/write speed. An advantage of these features is that even when memory used for the

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first memory section has the characteristic of different read/write speeds in the row direction and the column direction, it is still possible to reduce the effects of the slower read/write speed and perform high-speed data transfer to the blood flow information computation section. Thus a program for use in an ultrasonic Doppler blood flow measurement device that is compact and inexpensive is achieved (see page 4, lines 1-11).

Basoglu does not disclose or suggest these features. Basoglu is directed to a real time color Doppler ultrasound image that has a first and second memory module for real-time viewing of a scanned target area in a display (see column 4, lines 53-54). However, nowhere does Basoglu disclose or suggest the process of performing data transfer from a first memory section to a second memory section, in a case where the result of a determination process is positive, in only the direction, of a row direction and a column direction of an address space of the first memory section, that has the faster data read/write speed. Basoglu merely discloses processing velocity data by alternately storing the data on a first and second memory module on a common substrate, with no mention of different data read/write speeds (see column 4, lines 53-54, column 15, lines 29-48 and column 16, lines 42-45) or use of a two-dimensional address space as required by claim 9 (see column 6, lines 36-40 and Figure 14). Moreover, Basoglu does not contemplate the cost and size problems associated with storing data in a first and second memory section.

103(a) Rejections:

Claims 3 and 5 are rejected as being unpatentable over Basoglu in view of Finger (US Patent No. 6,262,479). This rejection is traversed. Claims 3 and 5 depend from claim 1 and should be allowed for at least the same reasons describe above. Applicants do not concede the correctness of this rejection.

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Conclusion:

Applicants respectfully assert claims 1-7 and 9 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

**53148**

PATENT TRADEMARK OFFICE

Dated: June 11, 2007

Respectfully submitted,

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